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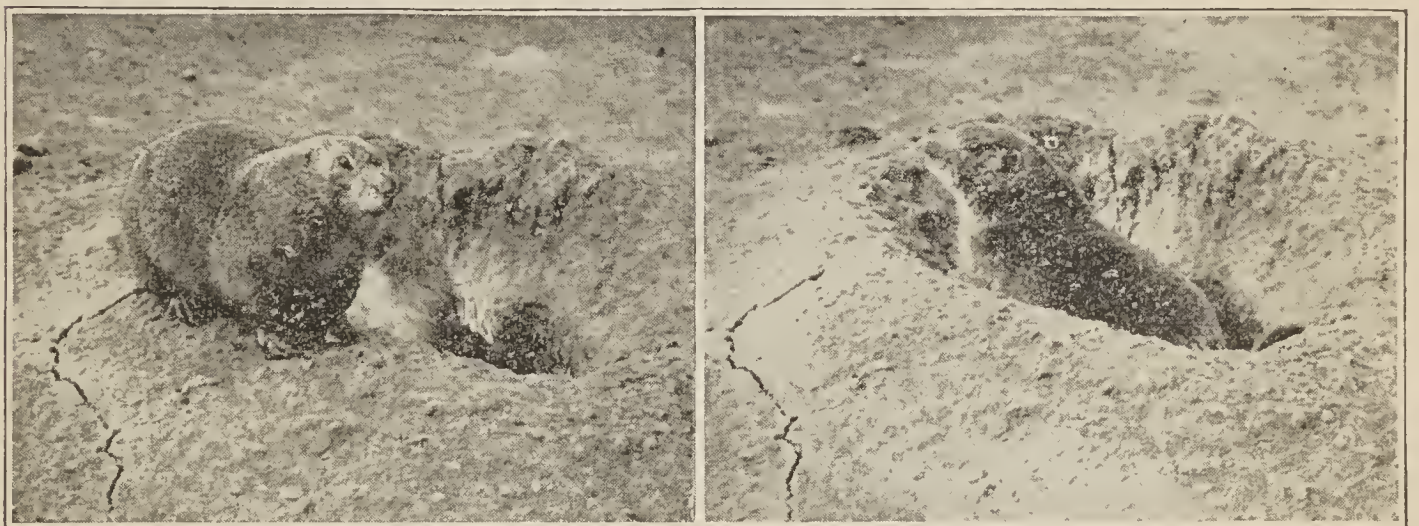
## United States Department of Agriculture,

BUREAU OF BIOLOGICAL SURVEY.

**DIRECTIONS FOR THE DESTRUCTION OF PRAIRIE DOGS.**

Of the various agents that have been used for the destruction of prairie dogs, it has been found in the preliminary experiments conducted by the Biological Survey that poisoned grain and bisulphide of carbon are the most effective and economical.

Poisoned grain is the less expensive of the two and is most efficient in winter and early spring, when the ordinary food of the prairie dog is scarce and difficult to obtain. At this season, by its proper and



Prairie dogs at mouths of burrows.

systematic use, 80 to 90 per cent of the animals may be destroyed at a cost of 10 to 15 cents per acre. The remainder may be killed by the use of bisulphide of carbon, the cost of which should be about 1 cent per hole.

**POISONED FOOD.**

Sulphate of strychnine is probably the best and most satisfactory poison now known for the destruction of prairie dogs. Care should be taken to procure *strychnia sulphate*, since the strychnine usually sold by druggists is insoluble in water. Experiments have shown that 1½ ounces of strychnia sulphate to a bushel of grain is sufficient. The strychnine should be dissolved in 2½ gallons of water by heating in a covered receptacle. When thoroughly dissolved, add the grain and allow to simmer in a closed vessel, stirring occasionally, until the moisture is taken up by the grain; or the mixture may be allowed to stand overnight to absorb the free moisture.



In distributing the poisoned grain or other material it is usually best to scatter it outside the burrows instead of putting it inside, where it is likely to be trodden into the earth and lost. (See illustration.)

A half teaspoonful is sufficient for each occupied burrow. Enough should be used to kill the prairie dogs, without leaving a remainder to poison doves, larks, quail, or other valuable birds. For the same reason it is recommended that wherever practicable the poison be distributed during evening hours, so that it may be eaten by the prairie dogs early the following morning.

Recent experiments by S. E. Piper, of the Biological Survey, show that green alfalfa is an attractive bait for meadow mice and ground squirrels, and it is believed that it will prove equally effective for prairie dogs. Notwithstanding the fact that growing alfalfa was abundant when the experiments were tried, poisoned alfalfa placed in or near the burrows was readily eaten and proved fatal to a high percentage of the animals. Among the baits recommended for trial are *green alfalfa, green stems of young wheat or barley, green or ripening heads of wheat or barley, and green corn stalks*. The following formula is recommended:

Green alfalfa or green growing grain, cut in lengths of 2 to 4 inches	pounds	25
Strychnia sulphate	ounce	1
Water	gallon	$\frac{1}{2}$

Add the strychnia sulphate to the water and dissolve by heating in a closed receptacle. When the solution is cool, sprinkle the green material slowly with a sprinkling can, mixing constantly. The mixing should be continued until all free moisture disappears. For poisoning in late fall and early spring, when green vegetation is not available, chopped alfalfa hay may be used as a substitute for green alfalfa.

The poisoned material should be distributed in the evening or early morning, so that it may be eaten before it is dried up by the sun.

#### BISULPHIDE OF CARBON.

Crude bisulphide, suitable for killing prairie dogs and other burrowing animals, costs about 8 cents per pound in 50-pound carboys or drums. It is a volatile liquid and rapidly loses strength on exposure to the air; hence, it should be kept in tightly corked bottles or cans. It should not be introduced haphazard, but should be used only in burrows which the animals have been seen to enter immediately before it is applied, so that none may be wasted on unoccupied holes. It should be employed in the following manner:

A tablespoonful of crude bisulphide should be poured on a piece of horse manure, corncob, lump of earth, or other absorptive material; this should be thrown as far as possible down the burrow and the opening should be closed immediately; or, the desired quantity may be

placed in a shallow dish of any kind, or even in a receptacle made by folding a piece of waterproof paper, and thrust down into the burrow, after which the mouth of the burrow should be closed, as above described. Bisulphide can be used to best advantage after a rain, when the interspaces in the soil are filled with water, so that the fumes are less readily diffused into the surrounding ground. This, however, is of much less consequence in the case of prairie dogs, which are deep-burrowing animals, than in the case of pocket gophers and ground squirrels, whose burrows and tunnels, as a rule, lie much nearer the surface.

It should be clearly understood that the method recommended by this Department consists of two steps—(1) to destroy the great bulk of the inhabitants of the colony by poisoning with strychnine in winter or early spring when food is scarce; (2) to kill the remaining animals with bisulphide of carbon. In this way it is believed that colonies of any size may be wiped out at a total cost of not to exceed 16 or 17 cents per acre, probably less.

#### CAUTIONS.

The greatest care should be exercised in handling both the poisoned grain and the bisulphide. Bisulphide is inflammable and highly explosive, and should never be opened in the vicinity of a light or fire. The poisoned grain should never be placed where it may be reached by cattle, hogs, or poultry.

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Approved:

JAMES WILSON,  
*Secretary of Agriculture.*

WASHINGTON, D. C., *June 4, 1908.*

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